

Remarks:

1. Rejections.

Claims 1, 5, 7, and 9 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 5,923,135 to Takeda, and claims 1, 3-5, 7, 11, 12, 14, 15, 17, 18, 20, and 21 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,844,399 to Stuart. Claims 9, 13, 16, 19, and 22 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered obvious by Stuart in view of Takeda. Applicant respectfully traverses.

2. Anticipation Rejections

As noted above, claims 1, 3-5, 7, 9, 11, 12, 14, 15, 17, 18, 20, and 21 stand rejected as allegedly anticipated by Takeda or Stuart, or both. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. . . . ‘The identical invention must be shown in as complete detail as is contained in the . . . claim.’” MPEP 2131 (citations omitted). The Office Action asserts that each of Takeda and Stuart discloses each and every element of claims 1, 3-5, 7, 9, 11, 12, 14, 15, 17, 18, 20, and 21. Applicant respectfully traverses.

a. Claims 1, 3, and 4

Applicant’s claims 1, 3 and 4, as amended, recite “performing junction temperature reduction processing by reducing the switching loss (Lo1).” Support for this amendment may be found in Applicant’s disclosure at, for example, Paras. [0043]-[0047] and [0051] of Published Patent Application No. US 2004/012488 A1. Applicant respectfully submits that each of Takeda and Stuart fails to disclose at least this feature of claims 1, 3, and 4.

In contrast, Takeda discloses a detector for detecting a temperature having a correlation to a temperature of at least one switching device, an estimator for estimating the junction temperature of the switching device from the detected temperature, and an adjuster for

adjusting an output of a motor drive circuit, so that the estimated junction temperature is equal to or below an allowable limit of the junction temperature. See Takeda, Column 2, Lines 30-51. Takeda further discloses that the junction temperature can be adjusted by reducing the current, or reduce the “pulse on duty ratio.” See Takeda, Column 4, Lines 66-67; Column 5, Lines 1-5 and 48-55.

Moreover, Stuart discloses determining a switching circuit junction temperature T_{JQ1} , and then determining whether the junction temperature T_{JQ1} is greater than a predetermined maximum temperature T_{max} . See Stuart, Column 10, Lines 30-34. If T_{JQ1} is greater than T_{MAX} , then a reference battery current I_{BREF} is decreased to reduce the junction temperature. See Stuart, Column 10, Lines 34-48; **Fig. 4**.

Takeda and Stuart only disclose decreasing the electric current to reduce the junction temperature below a predetermined junction temperature threshold. Accordingly, both Takeda and Stuart fail to disclose reducing the junction temperature by reducing switching losses. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejections of claims 1, 3, and 4 because Takeda and Stuart fail to disclose each and every element of the claimed inventions.

b. Claims 5, 7, 9, 11, 12, 14, 15, 17, 18, 20, and 21

Claims 5, 7, 9, 11, 12, 14, 15, 17, 18, 20, and 21 ultimately depend from one of independent claims 1, 3, and 4, as amended, and, thus, incorporate each and every feature of those claims. As a result, these dependent claims should be allowable over Takeda and Stuart for at least the same reasons as claims 1, 3, and 4, in addition to reciting additional patentably distinct features. Therefore, Applicants respectfully request that the Examiner also withdraw the anticipation rejections of claims 5, 7, 11, 12, 14, 15, 17, 18, 20, and 21.

3. Obviousness Rejections

Claims 9, 13, 16, 19, and 22 stand rejected as allegedly rendered obvious by the combination of Stuart and Takeda. In order to establish a prima facie case of obviousness, the Office Action must fulfill three (3) criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as proposed by the Office Action. Second, there must be a reasonable expectation of success. Third, the prior art references must disclose or suggest all the claim limitations. MPEP 2143. The Office Action alleges that the proposed combination of Takeda and Stuart disclose each and every element of the claimed inventions as a whole. Applicant respectfully traverses.

Claims 19 and 22 depend from independent claims 3 and 4, respectively, and, thus, incorporate each and every element of those claims. As noted above, Stuart and Takeda fail to disclose at least the feature of “performing junction temperature reduction processing by reducing the switching loss (Lo1).” Accordingly, the Office Action fails to establish of prima facie case of obviousness because the proposed combination of Stuart and Takeda do not disclose or suggest all the features of claims 19 and 22. In addition, MPEP 2143.03 states that “[i]f an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” Therefore, Applicant respectfully requests the Examiner to withdraw the obviousness rejections of claims 19 and 22.

Conclusion:


Applicant maintains that the above-captioned patent application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution of this application may be furthered by discussing the application, in person or by telephone, with Applicant's representative, Applicant would welcome the opportunity to do so.

Applicant believes that no fees are due as a result of this responsive amendment. Nevertheless, in the event of any variance between the fees determined by Applicant and the fees determined by the U.S. Patent and Trademark Office, please charge or credit any such variance to the undersigned's **Deposit Account No. 02-0375**.

Respectfully submitted,
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